

**Work Order ID 81764****\*81764\***

Page 1

March-19-12 7:43:33 AM

Item ID: D2571

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Saddle, Fwd Out 205

Start Date: 19/03/2012 Start Qty: 12.00

**\*12\***

Cust Item ID:

Required Date: 12/04/2012 Req'd Qty: 12.00

**\*12\***

Customer:

Reference:

Approvals: Process Plan: MLJDate: 12/03/19

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start **\*NR1\***Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D2571

Rev E

100

0.00

**\*100\***

HAAS CNC VERTICAL MACHINING #1

HAAS I

Memo

0.00

HAAS CNC vertical machine #1

Program Batch No. 81764 Double check by: BA 1-Machine Step No 1  
per Folio FA051 and inspect per attached Dimension Sheets2-Machine Step  
No 2 per Folio FA051 and inspect per attached Dimension Sheets3-Machine  
Step No 3 per Folio FA051 and inspect

110

0.00

**\*110\***

CONVENTIONAL MILLING MACHINE

Mill Conv

Memo

0.00

Conventional Milling Machine

Machine keyway as per dwg D2571 &amp; D2572

120

0.00

**\*120\***

QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

Quality Control

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 81764****\*81764\***

Page 2

March-19-12 7:43:33 AM

Item ID: D2571

Accept

**\*N9000040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Saddle, Fwd Out 205

Start Date: 19/03/2012 Start Qty: 12.00

**\*12\***

Cust Item ID:

Required Date: 12/04/2012 Req'd Qty: 12.00

**\*12\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

130

QC8- Inspect parts - second check

0.00

SL 12/04/02

**\*130\***

QC

Memo

0.00

Quality Control

140

Chemical Conversion Coat per QSI005 4.1

0.00

**\*140\***

HandFinish

Memo

0.00

Hand Finishing

12 BL 12.4.2

150

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

**\*150\***

Powdercoat

Memo

0.00

Powder Coating

START TIME:

3h50

OVEN TEMPERATURE:

320°F

M120222.

12 Q (OP) 12/04/02

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 81764****\*81764\***

Page 3

March-19-12 7:43:33 AM

Item ID: D2571

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Saddle, Fwd Out 205

Start Date: 19/03/2012 Start Qty: 12.00

**\*12\***

Cust Item ID:

Required Date: 12/04/2012 Req'd Qty: 12.00

**\*12\***

Customer:

Reference:

Approvals:

Process Plan: \_\_\_\_\_

Date: \_\_\_\_\_

Tooling: \_\_\_\_\_

Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_

Date: \_\_\_\_\_

SPC (Y/N): \_\_\_\_\_

Date: \_\_\_\_\_

Stop **\*NR2\***Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

160

QC3- Inspect Part Finish

0.00

**\*160\***

QC

Memo

0.00

Quality Control

*12/12/12 H-3.*

170

Identify as per dwg & Stock Location: *432*

0.00

**\*170\***

Packaging

Memo

0.00

Packaging

*JB (12) 12/04/03*

180

QC21- Final Inspection - Work Order Release

0.00

**\*180\***

QC

Memo

0.00

Quality Control

*12/14/13**12/04/03*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

March-19-12 7:43:37 AM

Page 1

Work Order ID: 81764

\*81764\*

Parent Item: D2571

\*D2571\*

Parent Item Name: Saddle, Fwd Out 205

Start Date: 19/03/2012

Required Date: 12/04/2012

Start Qty: 12.00

Required Qty: 12.00

Comments: IPP: 102.10.02Re-format; Change to Dwg Rev. D & incorporated  
D2572KJ

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6101-007		Manufactured	No			100	Each	53.0000	1	12			

\*D6101-007\*

Saddle Billet

\*\*

B.A 12/03/24

Location

Loc Qty

Loc Code

MAT042

48

→ 79589

20

79875

28

MAT045

5

70680

3

76839

2

12.0

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

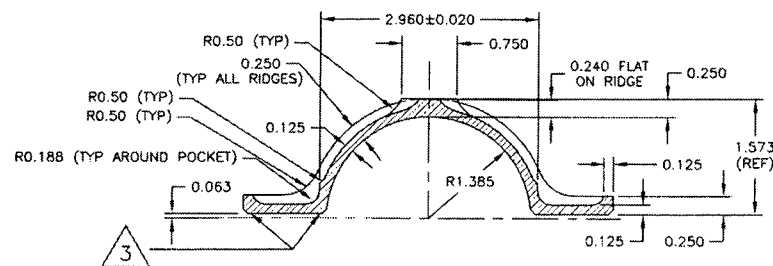
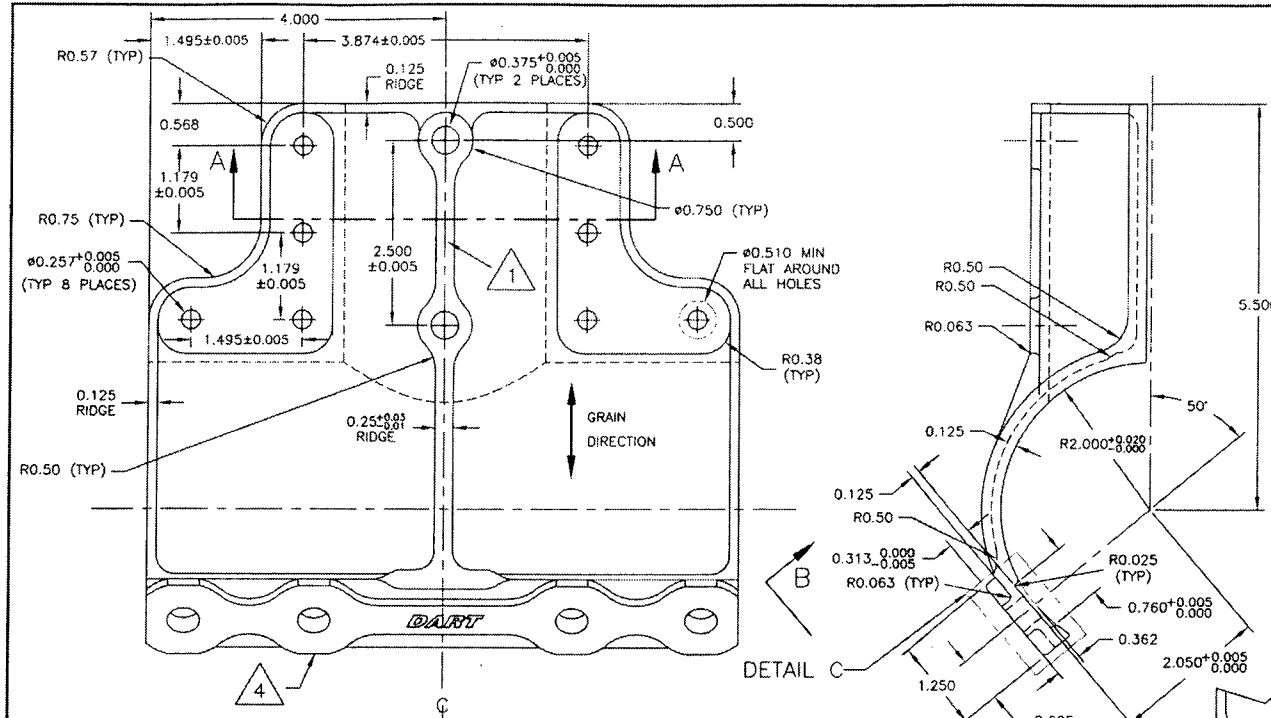


RELEASED  
05.12.19

# NOTES

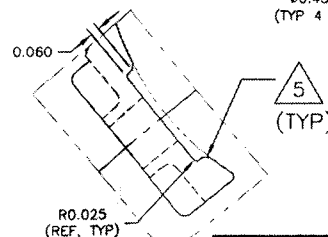
MATERIAL: 7075-T7351 (QQ-A-250/12) (REF DART SPEC. D6102-001)  
FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1  
POWDER COAT GLOSS WHITE (REF 4.3.5.1) PER DART QSI 005 4.3  
BREAK ALL SHARP EDGES 0.010 TO 0.020  
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

- 1 ENGRAVE PART AND BATCH NUMBER IN THIS AREA TO MAX DEPTH OF 0.010
- 2 ENGRAVE DART LOGO TO MAX DEPTH OF 0.015 WITH MIN RAD 0.125
- 3 CHAMFER 0.063" x 45° AROUND THIS SURFACE (TYPICAL 2 PLACES)
- 4 CHAMFER 0.063" x 45° ALL AROUND
- 5 CHAMFER 0.033" x 45° (SEE DETAIL C)

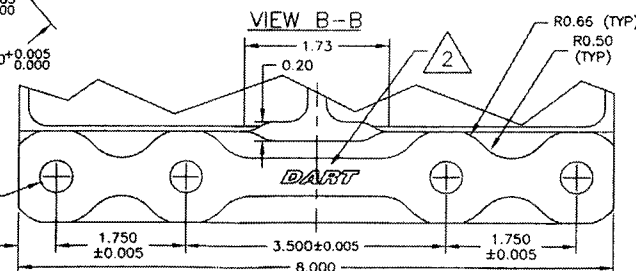


SECTION A-A

DETAIL C



DETAIL C  
SCALE 4:3



E	05.07.13	ADD CHAMFER ON RIDGE, NOTE 5
D	02.09.06	ADD RIDGES; TIGHTEN TOLERANCES
C	99.10.22	INCORP. DEO 9123/9079/9102 ADD DIMENSIONS PER TSR A1177
B	96.12.02	ADD GRAIN DIR., 0.438 WAS 0.425
A	96.09.16	NEW ISSUE

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DESIGN	DS	DRAWN BY	PH	<b>DART</b>	DART AEROSPACE LTD. WINDSOR, ONTARIO, CANADA
CHECKED	#	APPROVED	#	DRAWING NO.	D2571
DATE	05.07.13	TITLE	OUTER FWD SADDLE	REV. E	SHEET 1 OF 1
		SCALE	2:3		

SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
No. 81764 MJS

12/03/19

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

<b>DART AEROSPACE LTD</b>	<b>Work Order:</b>	81764
<b>Description:</b> Saddle, Fwd Outboard	<b>Part Number:</b>	D2571
<b>Inspection Dwg:</b> D2571 Rev. E		Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2571 Rev. E and record below:

				Recorded Actual Dimensions					
Dim	Min	Max	Go/No Go Gauge	1	2	3	4	By	Date
A	0.438	0.443		.438	.438	.438	.438		
B	1.745	1.755		1.750	1.750	1.750	1.750		
C	3.495	3.505		3.500	3.500	3.500	3.500		
D	1.745	1.755		1.750	1.750	1.750	1.750		
E	7.990	8.010		8.003	8.003	8.003	8.003		
F	0.490	0.510		.501	.501	.502	.503		
G	0.257	0.262		.257	.257	.257	.257		
H	0.375	0.380		.376	.376	.376	.376		
I	0.490	0.510		.503	.500	.502	.506		
J	1.174	1.184		1.179	1.179	1.179	1.179		
K	0.558	0.578		.569	.568	.568	.568		
L	1.174	1.184		1.179	1.179	1.179	1.179		
M	1.490	1.500		1.495	1.495	1.495	1.495		
N	2.495	2.505		2.500	2.500	2.500	2.500		
O	3.869	3.879		3.874	3.874	3.874	3.874		
P	0.115	0.135		.126	.126	.126	.126		
Q	0.115	0.135		.135	.135	.135	.135		
R	0.240	0.260		.250	.250	.250	.250		
S	0.115	0.135		.130	.130	.130	.130		
T	0.178	0.198		.188	.188	.188	.188		
U	2.940	2.980		2.962	2.962	2.962	2.962		
V	0.230	0.250		.238	.238	.238	.238		
W	0.115	0.135		.123	.123	.123	.123		
X	0.308	0.313		.309	.309	.309	.310		
Y	0.760	0.765		.760	.760	.760	.760		
Z	0.352	0.372		.361	.361	.361	.360		
AA	0.470	0.530		.500	.500	.500	.500		
AB	0.615	0.635		.627	.627	.627	.623		
AC	0.053	0.073		.063	.063	.063	.063		
AD	0.240	0.260		.255	.255	.255	.245		
AE	1.375	1.395		1.388	1.389	1.389	1.388		
AF	0.115	0.135		.130	.130	.130	.130		
AG	0.240	0.280		.250	.250	.250	.250		
AH	0.240	0.260		.248	.248	.248	.247		
AI	2.000	2.020		2.005	2.005	2.008	2.006		
AJ	0.023	0.043		.032	.032	.032	.032		
Accept/Reject									

Measured by:	BL
Date:	12/03/02

Audited by:	JL
Date:	12/04/02

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.09.24	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
D	05.05.05	Added dimension AI	KJ/RF	
E	05.12.05	Added dimension AJ	KJ/JLM	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

<b>DART AEROSPACE LTD</b>	<b>Work Order:</b>	81764
<b>Description:</b> Saddle, Fwd Outboard	<b>Part Number:</b>	D2571
<b>Inspection Dwg:</b> D2571 Rev. E		Page 1 of 1

Inspect dimensions highlighted on inspection sheet drawing D2571 Rev. E and record below:

				Recorded Actual Dimensions					
Dim	Min	Max	Go/No Go Gauge	5.4	6.2	7.5	8.4	By	Date
A	0.438	0.443		.438	.438	.438	.438		
B	1.745	1.755		1.750	1.750	1.750	1.750		
C	3.495	3.505		3.500	3.500	3.500	3.500		
D	1.745	1.755		1.750	1.750	1.750	1.750		
E	7.990	8.010		8.003	8.003	8.003	8.003		
F	0.490	0.510		.502	.502	.502	.502		
G	0.257	0.262		.257	.257	.257	.257		
H	0.375	0.380		.376	.376	.376	.376		
I	0.490	0.510		.502	.503	.503	.503		
J	1.174	1.184		1.179	1.179	1.179	1.179		
K	0.558	0.578		.568	.568	.568	.568		
L	1.174	1.184		1.179	1.179	1.179	1.179		
M	1.490	1.500		1.495	1.495	1.495	1.495		
N	2.495	2.505		2.500	2.500	2.500	2.500		
O	3.869	3.879		3.874	3.874	3.874	3.874		
P	0.115	0.135		.126	.126	.126	.126		
Q	0.115	0.135		.135	.135	.135	.135		
R	0.240	0.260		.250	.250	.250	.250		
S	0.115	0.135		.130	.130	.130	.130		
T	0.178	0.198		.188	.188	.188	.188		
U	2.940	2.980		2.962	2.962	2.962	2.962		
V	0.230	0.250		.237	.237	.237	.237		
W	0.115	0.135		.122	.120	.122	.122		
X	0.308	0.313		.310	.309	.310	.310		
Y	0.760	0.765		.760	.760	.760	.760		
Z	0.352	0.372		.362	.360	.360	.361		
AA	0.470	0.530		.500	.500	.500	.500		
AB	0.615	0.635		.625	.625	.626	.625		
AC	0.053	0.073		.063	.063	.063	.063		
AD	0.240	0.260		.250	.250	.250	.250		
AE	1.375	1.395		1.385	1.385	1.385	1.385		
AF	0.115	0.135		.130	.130	.130	.130		
AG	0.240	0.280		.250	.250	.250	.250		
AH	0.240	0.260		.247	.248	.247	.247		
AI	2.000	2.020		2.004	2.004	2.004	2.004		
AJ	0.023	0.043		.032	.032	.032	.032		
Accept/Reject									

Measured by:	BC
Date:	12/03/28

Audited by:	JL
Date:	12/04/02

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.09.24	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
D	05.05.05	Added dimension AI	KJ/RF	
E	05.12.05	Added dimension AJ	KJ/JLM	

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b>	31764
<b>Description:</b> Saddle, Fwd Outboard		<b>Part Number:</b>	D2571
<b>Inspection Dwg:</b> D2571 Rev. E		<b>Page 1 of 1</b>	

Inspect dimensions highlighted on inspection sheet drawing D2571 Rev. E and record below:

				Recorded Actual Dimensions				By	Date
Dim	Min	Max	Go/No Go Gauge	9 4	10 2	11 3	12 4		
A	0.438	0.443		.438	.438	.438	.438		
B	1.745	1.755		1.750	1.750	1.750	1.750		
C	3.495	3.505		3.500	3.500	3.500	3.500		
D	1.745	1.755		1.750	1.750	1.750	1.750		
E	7.990	8.010		8.004	8.004	8.004	8.004		
F	0.490	0.510		.506	.507	.505	.505		
G	0.257	0.262		.257	.257	.257	.257		
H	0.375	0.380		.376	.376	.376	.376		
I	0.490	0.510		.505	.506	.505	.505		
J	1.174	1.184		1.179	1.179	1.179	1.179		
K	0.558	0.578		.571	.572	.572	.572		
L	1.174	1.184		1.179	1.179	1.179	1.179		
M	1.490	1.500		1.495	1.495	1.495	1.495		
N	2.495	2.505		2.500	2.500	2.500	2.500		
O	3.869	3.879		3.874	3.874	3.874	3.874		
P	0.115	0.135		.126	.126	.126	.126		
Q	0.115	0.135		.135	.135	.135	.135		
R	0.240	0.260		.250	.250	.250	.250		
S	0.115	0.135		.127	.127	.127	.127		
T	0.178	0.198		.188	.188	.188	.188		
U	2.940	2.980		2.963	2.963	2.963	2.963		
V	0.230	0.250		.238	.238	.238	.238		
W	0.115	0.135		.118	.119	.122	.120		
X	0.308	0.313		.310	.311	.311	.311		
Y	0.760	0.765		.760	.760	.760	.760		
Z	0.352	0.372		.362	.361	.361	.361		
AA	0.470	0.530		.500	.500	.500	.500		
AB	0.615	0.635		.625	.625	.625	.625		
AC	0.053	0.073		.063	.063	.063	.063		
AD	0.240	0.260		.252	.252	.252	.252		
AE	1.375	1.395		1.385	1.385	1.385	1.385		
AF	0.115	0.135		.130	.130	.130	.130		
AG	0.240	0.280		.250	.250	.250	.250		
AH	0.240	0.260		.247	.246	.246	.246		
AI	2.000	2.020		2.003	2.003	2.003	2.003		
AJ	0.023	0.043		.043	.043	.043	.046		
Accept/Reject									

Measured by:	TSC
Date:	12/03/30

Audited by:	JH
Date:	12-04-02

Rev	Date	Change	Revised by	Approved
A		New Issue	RF	
B	02.09.24	Re-format; Added Rev. D	KJ	
C	02.10.11	Re-format; Added DT8682, DT8683, DT8684	KJ	
D	05.05.05	Added dimension AI	KJ/RF	
E	05.12.05	Added dimension AJ	KJ/JLM	